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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,507	10/01/2003	Kang Soo Seo	1740-000062/US	4238
30593 7590 01/03/2008 HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER ZHAO, DAQUAN	
			ART UNIT 2621	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/674,507

Applicant(s)

SEO ET AL.

Examiner

Daquan Zhao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

Claims 16-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claim 16 recites a [data structure, mere compilation of data, a photograph, an image, etc.] which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

Claims 17-24 are also affected.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, 5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,754,435 B2) and further in view of Burgess et al (US 7,110,137 B2).

Regarding claim 1, Kim teaches a method of recording graphic data on a recording medium, comprising:

(a) recording a plurality of graphic images pertaining to a main video image separately with the main video image (e.g. figure 4 and column 3, lines 52-67, the sub-picture data, which corresponds to the "graphic images", is recorded in the disk "separately with" the video data); and

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(b) recording graphic link information to link the plurality of graphic images with the main video image for overlaying the main video image with the plurality of graphic images (e.g. figure 14, column 6, lines 11-40, the sub-picture data overlay with the video data as shown in figure 14, the PTT table links the Video Title and the corresponding sub-picture, or caption data, also see column 5, lines 45-50, column 4, lines 53-56).

However, Kim fails to teach graphic images having different color depths. Burgess et al teach graphic images having different color depths (e.g. figure 5, column 5, line 55- column 6, line 4, the foreground image has different color depth). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Burgess et al into the teaching of Kim to permit greater and/or more efficient compression by eliminating unneeded color specifying bits per pixel and/or faster compression and rendering performance (Burgess et al, column 6, lines 1-4).

Claim 25 is rejected for the same reasons as discussed in claim 1 above, Wherein column 5, lines 45-50, teach the sub-picture search table has location information of the moving picture data which are concurrently reproduced with the sub-picture data corresponds to "reproducing a main video image overlaid with at least one graphic image based on the reading of the graphic link information.

For claims 4 and 5, Kim teach, column 5, lines 45-50, and figure 14, "the sub-picture search table", corresponding to the "link information" as claimed, link the moving

picture with the sub-picture. Also see column 7, lines 41-60, the number of main video image does not make any patentable different.

5. Claims 6, 16, 2, 3, 15, 24, 8, 18, 9, 19, 10, 20, 11, 21, 12, 13, 14, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,754,435 B2) and Burgess et al (US 7,110,137 B2) as applied to claims 1, 4, 5 and 25 above, and further in view of Ochiai et al (US 2005/0,180,734 A1).

See the teaching of Kim and Burgess et al above.

Regarding to claims 6 and 16, Kim teaches, in column 5, lines 17- 22, and column 7, lines 24-41, the "sub-picture search table", which corresponds to the graphic link information as claimed, shown in figure 12 is stored in the hard disk 40 as a file. However, Kim and Burgess et al fail to specify files can be placed under a specific directory defined by a file structure of the recording medium or under at least one subdirectory created below the specific directory. Ochiai et al teach files can be placed under a specific directory defined by a file structure of the recording medium or under at least one subdirectory created below the specific directory (e.g. figure 9, paragraph [0159]). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Ochiai et al into the teaching of Kim to place the graphic image file and the graphic link information file under a specific directory defined by a file structure of the recording medium or under at least one subdirectory created below the specific directory for easily rewriting the data and

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achieve high reliability in when the data is reproduced (e.g. Ochiai et al, paragraph [0163]-[0165]).

For claim 2, Ochiai et al teach plurality of graphic images and graphic link information are grouped based on the said main video image (e.g. paragraph [0158]-[0159], claim reads on the subdirectory because the subdirectory is for grouping).

For claims 3, 15 and 24, Ochiai et al teach said plurality of graphic image and graphic link information are grouped based on the a title or a playlist of the recording medium (e.g. [0161], "SMoo" is consider to be a title for the sub-directory).

For claims 8 and 18, Ochiai et al teach the subdirectory is created for each group of the graphic image files (e.g. paragraph [0158]-[0159], subdirectory).

For claims 9 and 19, Ochiai et al teach the single graphic image is organized to the single graphic file (e.g. figure 9, DCIM). The number of graphic image does not make any patentable difference.

For claims 10 and 20, Ochiai et al teach all of the graphic image to constitute a plurality of main video images are organized to the single graphic image file (e.g. figure 9, "MSxxx" moving image file).

For claim 11 and 21, Ochiai et al teach plurality of the graphic image pertaining to same group are organized to the single graphic image file (e.g. "DCIM", still image file storage directory).

For claims 12, 13, 14, 22 and 23, Kim teach, column 5, lines 45-50, and figure 14, "the sub-picture search table", corresponding to the "link information" as claimed,

link the moving picture with the sub-picture. Also see column 7, lines 41-60, the number of main video image does not make any patentable different.

6. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,754,435 B2), Burgess et al (US 7,110,137 B2) and Ochiai et al (US 2005/0,180,734 A1), as applied to claims 6, 16, 2, 3, 15, 24, 8, 18, 9, 19, 11, 21, 12, 13, 14, 22, 23, 1, 4, 5 and 25 above, and further in view of Russ (US 5,446,857).

See the teaching of Kim, Burgess et al, and Ochiai et al above.

For claims 7 and 17, Kim, Burgess et al, and Ochiai et al fail to teach the read-only directory, Russ teach the read-only directory (e.g. column 7, lines 53-59). It would have been obvious to one ordinary skill in the art at the time the invention was made to have incorporate the teaching of Russ into the teaching of Kim, Burgess et al, and Ochiai et al to record the file directory in the Read-only memory to protects files from being overwritten in subsequent operations.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burbank (US 6,476,822 B1); Martin et al (US 6,281,903 B1).

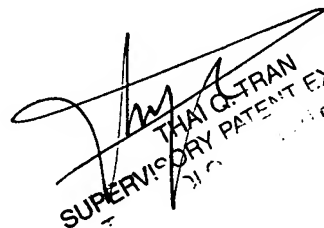
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ART UNIT 2600

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